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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,026	10/19/2001	Thomas L. Cable	7008	4215
29394	7590	11/10/2004		
BWX TECHNOLOGIES, INC. 1562 BEESON STREET ALLIANCE, OH 44601			EXAMINER KALAFUT, STEPHEN J	
			ART UNIT 1745	PAPER NUMBER

DATE MAILED: 11/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/042,026

Applicant(s)

CABLE ET AL.



Examiner

Stephen J. Kalafut

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-87 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 33,36,37,43-51 and 58-72 is/are allowed.
- 6) ☒ Claim(s) 1-32, 34-35, 38-42, 52-57 are 73-87 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

Art Unit: 1745

Claims 1-32, 34-35, 38-42, 52-57 are 73-87 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 is confusing because it recites that the conducting means is incorporated into the thickness of certain members. A thickness, however, is a dimension, rather than a part, of a member. Claims 2-32, 86 and 87 depend from claim 1, and would likewise be indefinite. Claims 3-10, 17-26, 31, 32, 34-35, 38-42, 52-57 are 73-87 each recite, or depend from claim reciting, the term "formed from", which implies that the recited material is not necessarily what a component is made of, but may also encompass a precursor thereto. Changing "from" to "of" is suggested.

Claims 33, 36, 37, 43-51 and 58-72 allowed. The prior art does not disclose a fuel cell interconnect with a separator plate positioned between two sets of flat plates, where the plates have means for conducting electricity therethrough, including vias within the separator plate, and where the flat plates include reactant gas flowpaths, where the separator segregates the gases on each side thereof from each other.

Claims 1-32, 34-35, 38-42, 52-57 are 73-87 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action. The solid oxide fuel cell of claim 1, with a separator plate between two flowfield plates, with means to conduct electricity therethrough, is not disclosed by the prior art cited below. Claims 34-35, 38-42, 52-57 are 73-87 depend from allowable claims 33 or 51.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mahli (US 5,789,093) and Shinn (US 3,880,670) disclose fuel cell separators which include conductive vias which extend through a central part thereof. The outer parts, however, are completely conductive, and thus not considered to be equivalents to the presently disclosed conductive vias, as would be required under §112, 6th paragraph practice. These references do not mention solid oxide fuel cells. George *et al.* (US 6,361,893) disclose a fuel cell with nails connecting one cell to the next, in series. Loutfy *et al.* (US 6,511,766) disclose a fuel cell separator in which conducting elements extend through and beyond a single plate. Roy *et al.* (US 6,171,719) and Miyakoshi *et al.* (US 2003/0039878) disclose fuel cell separators with flow fields which consist of plates with offset apertures. Kantak *et al.* (US 6,376,177) is the patent issuing from Serial No. 09/618,525, mentioned in the present specification, section 019.

The disclosure is objected to because of the following informalities: There is no drawing numeral 100, as mentioned in section 044 of the specification. Applicants should correct the reference to Serial No. 09/618,525, to recite the Patent No. Appropriate correction is required.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J. Kalafut whose telephone number is 571-272-1286. The examiner can normally be reached on Mon-Fri 8:00 am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

sjk



STEPHEN K. ARLT
PRIMARY EXAMINER
GROUP

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